

CLAIMS

1. Arrangement for analysing, simulating and/or monitoring functions and/or structures in a distributed control system (24) that works with a first protocol (28), characterized in that a first unit (2 and/or 3) is connected or can be connected to the control system, which first unit, due to its compatibility with the first protocol, receives and/or sends task instructions concerning the functions and/or structures, in that the first unit is connected to the control system via contacts (5, 6', 6'') and to an additional unit, called here a second unit, which in turn is connected or can be connected to or comprised in a tool arrangement, in that the first unit or the first and second units transform at least those parts in the first protocol that relate to the task instructions concerning the functions and/or structures into a second protocol, by means of which the tasks can be initiated and/or carried out in a tool arrangement (1) that is arranged to be able to work with the second protocol, whereby primary readings and/or modifications in the first protocol on the basis of the analysis, simulation and/or monitoring can be carried out by means of secondary readings and/or modifications in the second protocol, in that the tool arrangement is arranged with a first part (1) with large capacity in order to be able to carry out sophisticated calculation, simulation and/or analysis tasks and with a second part that consists, for example, of the said unit, a PDA, etc, that is arranged to carry out more limited tasks of such a kind, and in that the first part is arranged, by means of interaction with a user (407, 408), to generate configuration file(s) concerning the tasks (subsidiary tasks) that are to be carried out or handled, which configuration file(s) are arranged to be

able to be downloaded or transferred to the second part. [TN11]

2. Arrangement according to claim 1,
5 characterized in that one or more first units (23) are arranged to be able to be connected to the control system or to one or more subsystems of the same, each of which one or more first units contains at least one microprocessor which communicates actively and/or
10 passively with the control system or its subsystems with appropriate connection, protocol and bit speed for the system or respective subsystem, and is connected to the second unit, which is equipped with at least one microprocessor using which it is arranged to exchange
15 information by means of a protocol, namely the second protocol, and connections that are completely or partially distinct from the system protocol or subsystem protocol, namely the first protocol, and in that the second unit (22) is in turn connected to the
20 tool arrangement (1) which contains at least one microprocessor, using which it is able to exchange information by means of the protocol concerned and connections that are completely or partially distinct from the previous protocol (the first protocol) and/or
25 connections, and in that the said communication is arranged to be carried out via a third unit.

3. Arrangement according to claim 2,
characterized in that the first unit is arranged to be
30 connected or to be able to be connected to the system in order to communicate with and, for example, analyse the system via the second unit (22), which is arranged to communicate with or analyse the first protocol.

35 4. Arrangement according to claim 3,
characterized in that the second protocol is arranged

to be used directly in a subsystem, and/or in that two or more subsystems are arranged to carry out analysis in parallel.

5 5. Arrangement according to any one of claims 2-4, characterized in that the second protocol is developed specially to serve as a common platform for the analysis of two or more systems with different or first protocols.

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6. Arrangement according to any one of claims 2-5, characterized in that the second unit provides a common time base for first units (23) working in parallel.

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7. Arrangement according to any one of claims 2-6, characterized in that the first unit or first units (23) are arranged for independent collection, processing and saving of information from the connected
20 system and in that the information generated in this way is arranged to be able to be read and/or interpreted via the generated information via the second unit.

25 8. Arrangement according to any one of claims 1-7, characterized in that it works with a data translation function, in that the third unit or third units are arranged to work in or with different functions in different phases.

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9. Arrangement according to claim 1-8, [TN12] characterized in that second parts with task instructions downloaded or transferred from the first part can be allocated to a number of technicians for
35 use of the second parts in different systems.

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10. Arrangement according to any one of the preceding claims, characterized in that in the interaction between the first part and the user, rules are generated for automatic repetition, and in that the
- 5 rules can be modified for a PDA unit with regard to the collected information and the presentation of the analysis result.